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**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 10/734,659

Filing Date: December 11, 2003

Appellant(s): HILLIS ET AL.

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Dale C. Barr  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed October 29, 2009 appealing from the Office action mailed February 6, 2009.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

### **WITHDRAWN REJECTIONS**

The following grounds of rejection are not presented for review on appeal because they have been withdrawn by the examiner. The 35 U.S.C. 101 rejection of claims 1-16 is withdrawn.

### **(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

### **(8) Evidence Relied Upon**

5,938,734	Yao et al.	8-1999
5,644,789	Gallagher et al.	7-1997
6,345,028	Jaeger	2-2002

### **(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

**Claims 17-32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.**

**As per claims 17-32,** the claims are not limited to tangible embodiments. Based on pages 3 and 18-20 of Applicant's specification, the "system" can be embodied as entirely software, *per se*, thus lacking hardware necessary to realize the software's

functionality. Therefore, the system of claims 17-32 simply represents functional descriptive material and is thus non-statutory subject matter.

**Claims 1-3, 5-7, 10-13, 17-19, 21-23, and 26-29 are rejected under U.S.C. 102(b) as being anticipated by Yao et al. (U.S. Patent 5,938,734).**

**As per claim 1,** Yao discloses a method comprising:

determining an organization of at least one content of at least one spatial data storage system (col. 6, lines 59-64; Fig. 4, element S18); *It should be noted that the “disk device” is analogous to the “spatial data storage system.”*

defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times (col. 7, lines 21-60; Fig. 5, elements S21-S25). *It should be noted that “carries out the scheduling” is analogous to “defining a schedule.”*

and transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times (col. 7, lines 60-65; Fig. 5, element S26).

**As per claim 2,** Yao discloses said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining one or more storage locations of at least one spatial address device associated with a video recording (col. 1, lines 13-19; col. 6, lines 59-64; Fig. 4, element S18). *See the citation note for the first limitation in claim 1 above.*

**As per claim 3**, Yao discloses said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining one or more storage locations of at least one spatial address device associated with at least one audio recording (col. 1, lines 13-19; col. 6, lines 59-64; Fig. 4, element S18). *See the citation note for the first limitation in claim 1 above.*

**As per claim 5**, Yao discloses said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining one or more storage locations of at least one spatial address device associated with at least a portion of at least one of computer processable and network processable data (col. 1, lines 13-19; col. 6, lines 59-64; Fig. 4, element S18). *It should be noted that video and audio streams are all both computer processable data as well as network processable data. Also, see the citation note for the first limitation in claim 1 above.*

**As per claim 6**, Yao discloses said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining an organization of at least one content of at least one file address storage system (col. 1, lines 13-19; col. 6, lines 59-64; Fig. 4, element S18).

**As per claim 7.** Yao discloses said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining an organization of at least one content of at least one disk address storage system (col. 1, lines 13-19; col. 6, lines 59-64; Fig. 4, element S18).

**As per claim 10.** Yao discloses said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining an organization of at least one content of at least one object address storage system (col. 1, lines 13-19; col. 6, lines 59-64; Fig. 4, element S18).

**As per claim 11.** Yao discloses said defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times further comprises:

defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices (col. 7, lines 21-60; Fig. 5, elements S21-S25). *It should be that the "real time stream data" located on the disk device is analogous to "at least one content spatially resident upon one or more spatial address devices."*

**As per claim 12.** Yao discloses said defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices further comprises:

determining a first time interval during which a first segment of a first content will be read from a first spatial address device (col. 9, lines 33-43 and 58-64; Fig. 7); *It should be noted that "S0" is analogous to the "first segment of a first content" and "disk-0" is analogous to the "first spatial address device."*

determining a second time interval during which a first segment of a second content will be read from a second spatial address device (col. 9, lines 33-43 and 58-64; Fig. 7); *It should be noted that "S1" is analogous to the "first segment of a second content" and "disk-4" is analogous to the "second spatial address device."*

and defining the schedule in response to the first time interval and the second time interval (col. 9, lines 44-52).

**As per claim 13.** Yao discloses said defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices further comprises:

determining a first time interval during which a first segment of a first content will be read from a first spatial address device (col. 9, lines 33-43; Fig. 6); *It should be noted that "S0" is analogous to the "first segment of a first content" and "disk-0" is analogous to the "first spatial address device."*

determining a second time interval during which a second segment of the first content will be read from a second spatial address device (col. 9, lines 33-43; Fig. 6); *It should be noted that "S1" is analogous to the "second segment of a first content" and "disk-1" is analogous to the "second spatial address device."*

and defining the schedule in response to the first time interval and the second time interval (col. 9, lines 44-52).

**As per claim 17,** Yao discloses a system comprising:

means for determining an organization of at least one content of at least one spatial data storage system (col. 6, lines 59-64; Fig. 4, element S18); *See the citation note for the similar limitation in claim 1 above.*

and means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times (col. 7, lines 21-60; Fig. 5, elements S21-S25). *See the citation note for the similar limitation in claim 1 above.*

means for transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times (col. 7, lines 60-65; Fig. 5, element S26).

**As per claim 18,** Yao discloses said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining one or more storage locations of at least one spatial address device associated with a video recording (col. 1, lines 13-19; col. 6, lines 59-64; Fig. 4, element S18). *See the citation note for the first limitation in claim 1 above.*

**As per claim 19,** Yao discloses said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining one or more storage locations of at least one spatial address device associated with at least one audio recording (col. 1, lines 13-19; col. 6, lines 59-64; Fig. 4, element S18). *See the citation note for the first limitation in claim 1 above.*

**As per claim 21,** Yao discloses said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining one or more storage locations of at least one spatial address device associated with at least a portion of at least one of computer processable and network processable data (col. 1, lines 13-19; col. 6, lines 59-64; Fig. 4, element S18). *See the citation note for claim 5 above.*

**As per claim 22,** Yao discloses said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining an organization of at least one content of at least one file address storage system (col. 1, lines 13-19; col. 6, lines 59-64; Fig. 4, element S18).

**As per claim 23.** Yao discloses said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining an organization of at least one content of at least one disk address storage system (col. 1, lines 13-19; col. 6, lines 59-64; Fig. 4, element S18).

**As per claim 26.** Yao discloses said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining an organization of at least one content of at least one object address storage system (col. 1, lines 13-19; col. 6, lines 59-64; Fig. 4, element S18).

**As per claim 27.** Yao discloses said means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times further comprises:

means for defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices (col. 7, lines 21-60; Fig. 5, elements S21-S25). *See the citation note for claim 11 above.*

**As per claim 28,** Yao discloses said means for defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices further comprises:

means for determining a first time interval during which a first segment of a first content will be read from a first spatial address device (col. 9, lines 33-43 and 58-64; Fig. 7); *See the citation note for the similar limitation in claim 12 above.*

means for determining a second time interval during which a first segment of a second content will be read from a second spatial address device (col. 9, lines 33-43 and 58-64; Fig. 7); *See the citation note for the similar limitation in claim 12 above.*

and means for defining the schedule in response to the first time interval and the second time interval (col. 9, lines 44-52).

**As per claim 29,** Yao discloses said means for defining the schedule in response to an order in which the at least one content is spatially resident upon one or more spatial address devices further comprises:

means for determining a first time interval during which a first segment of a first content will be read from a first spatial address device (col. 9, lines 33-43; Fig. 6); *See the citation note for the similar limitation in claim 13 above.*

means for determining a second time interval during which a second segment of the first content will be read from a second spatial address device (col. 9, lines 33-43; Fig. 6); *See the citation note for the similar limitation in claim 13 above.*

and means for defining the schedule in response to the first time interval and the second time interval (col. 9, lines 44-52).

**Claims 14-16 and 30-32 are rejected under 35 U.S.C. 103(a) as being obvious over Yao in view of Gallagher et al. (U.S. Patent 5,644,789).**

**As per claim 14,** Yao discloses all the limitations of claim 14 except said defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times further comprises:

selecting a first content from a log of one or more data switch controller content requests.

Gallagher discloses said defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times further comprises:

selecting a first content from a log of one or more data switch controller content requests (col. 3, lines 61-63; col. 6, lines 34-44; Fig. 2, element 323; Fig. 5). *It should be noted that the “queue” is analogous to the “log.”*

Yao and Gallagher are analogous art because they are from the same field of endeavor, that being multimedia playback systems.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to implement Gallagher's execution queue within Yao's real time stream server.

The motivation for doing so would have been to provide more efficient utilization of disk storage devices (Gallagher, col. 2, lines 60-61).

**As per claim 15,** the combination of Yao/Gallagher discloses said selecting a first content from a log of one or more data switch controller content requests further comprises:

generating a prospective request for content from a data switch controller (Gallagher, col. 3, lines 58-63);

and logging the prospectively generated request for content from the data switch controller (Gallagher, col. 4, lines 1-9; Fig. 2, element 323). *It should be noted that "placement in the execution queue" is analogous to "logging."*

**As per claim 16,** the combination of Yao/Gallagher discloses said generating a prospective request for content from a data switch controller further comprises:

consulting at least one historical request for content from at least one data switch controller (Gallagher, col. 5, lines 62-64; Fig. 5). *It should be noted that "request 2" is consulted in order to execute "function 2."*

As per claim 30, Yao discloses all the limitations of claim 30 except said means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times further comprises: means for selecting a first content from a log of one or more data switch controller content requests.

Gallagher discloses said means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times further comprises:

means for selecting a first content from a log of one or more data switch controller content requests (col. 3, lines 61-63; col. 6, lines 34-44; Fig. 2, element 323; Fig. 5). *See the citation note for claim 14 above.*

Yao and Gallagher are analogous art because they are from the same field of endeavor, that being multimedia playback systems.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to implement Gallagher's execution queue within Yao's real time stream server.

The motivation for doing so would have been to provide more efficient utilization of disk storage devices (Gallagher, col. 2, lines 60-61).

As per claim 31, the combination of Yao/Gallagher discloses said means for selecting a first content from a log of one or more data switch controller content requests further comprises:

means for generating a prospective request for content from a data switch controller (Gallagher, col. 3, lines 58-63);

and means for logging the prospectively generated request for content from the data switch controller (Gallagher, col. 4, lines 1-9; Fig. 2, element 323). *See the citation note for the similar limitation in claim 15 above.*

As per claim 32, the combination of Yao/Gallagher discloses said means for generating a prospective request for content from a data switch controller further comprises:

means for consulting at least one historical request for content from at least one data switch controller (Gallagher, col. 5, lines 62-64; Fig. 5). *See the citation note for claim 16 above.*

**Claims 4, 8-9, 20, and 24-25 are rejected under 35 U.S.C. 103(a) as being obvious over Yao in view of Jaeger (U.S. Patent 6,345,028).**

As per claim 4, Yao discloses all the limitations of claim 4 except said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining one or more storage locations of at least one spatial address device associated with at least one audio-visual recording.

Jaeger discloses said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining one or more storage locations of at least one spatial address device associated with at least one audio-visual recording (col. 6, lines 49-58; col. 8, lines 36-46; Fig. 5). *It should be noted that "audio and video tracks" are analogous to "at least one audio-visual recording."*

Yao and Jaeger are analogous art because they are from the same field of endeavor, that being multimedia playback systems.

At the time of the invention it would have been obvious to a person of ordinary skill in the art to implement Jaeger's time stamp locations of the composite data frames within Yao's real time stream server.

The motivation for doing so would have been to maximize the number of audio or video tracks that can be played back from a disk drive (Jaeger, col. 1, lines 14-16).

**As per claim 8**, the combination of Yao/Jaeger discloses said determining an organization of at least one content of at least one spatial data storage system further comprises:

determining an organization of at least one content of at least one tape address storage system (Jaeger, col. 5, lines 12-20; col. 6, lines 49-58).

As per claim 9, the combination of Yao/Jaeger discloses said determining an organization of at least one content of at least one spatial data storage system further comprises:

    determining an organization of at least one content of at least one substantially static memory address storage system (Jaeger, col. 5, lines 12-20; col. 6, lines 49-58).

As per claim 20, Yao discloses all the limitations of claim 20 except said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

    means for determining one or more storage locations of at least one spatial address device associated with at least one audio-visual recording.

    Jaeger discloses said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

    means for determining one or more storage locations of at least one spatial address device associated with at least one audio-visual recording (col. 6, lines 49-58; col. 8, lines 36-46; Fig. 5). *See the citation note for claim 4 above.*

    Yao and Jaeger are analogous art because they are from the same field of endeavor, that being multimedia playback systems.

    At the time of the invention it would have been obvious to a person of ordinary skill in the art to implement Jaeger's time stamp locations of the composite data frames within Yao's real time stream server.

The motivation for doing so would have been to maximize the number of audio or video tracks that can be played back from a disk drive (Jaeger, col. 1, lines 14-16).

**As per claim 24**, the combination of Yao/Jaeger discloses said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining an organization of at least one content of at least one tape address storage system (Jaeger, col. 5, lines 12-20; col. 6, lines 49-58).

**As per claim 25**, the combination of Yao/Jaeger discloses said means for determining an organization of at least one content of at least one spatial data storage system further comprises:

means for determining an organization of at least one content of at least one substantially static memory address storage system (Jaeger, col. 5, lines 12-20; col. 6, lines 49-58).

#### **(10) Response to Argument**

##### **Response to B.1.a.1.**

Appellant argues, in section B.1.a.1., that:

*“...Yao does not recite the text of clause [b] (“defining a schedule of content transmission in response to the organization of the at least one content of the at least*

one spatial data storage system, the schedule expressly identifying the content by one or more transmission times") of *Appellant's Independent Claim 1.*"

The Examiner respectfully disagrees. As detailed in previous Office actions, the Examiner submits that Yao's "unit streams S0 to Sm-1" are equivalent to Appellant's claimed "content". Keeping that in mind, when taking the broadest reasonable interpretation of the limitation "defining a schedule of content transmission", it becomes evident that the multiple steps involved in Yao's process of carrying out the scheduling of transfer starting times for the unit streams S0 to Sm-1 (see col. 7, lines 33-60 and Fig. 5 of Yao) sufficiently disclose the limitation of "defining a schedule of content transmission", as simply and broadly claimed by Appellant.

Furthermore, the Examiner submits that Yao's "transfer start timings" for each of the unit streams S0 to Sm-1 are equivalent to Appellant's claimed "one or more transmission times". Thus, it follows that Yao's schedule, in which transfer start timings are associated with each of the unit streams S0 to Sm-1 (see col. 7, lines 33-35 and Fig. 5, element S25 of Yao), sufficiently discloses "the schedule expressly identifying the content by one or more times", as simply and broadly claimed by Appellant.

Additionally, it appears that Appellant is concerned by the fact that the top block of the disk device is read before the transfer start timing. However, such actions make sense because the reading of the top block from disk device 31 into buffer memory 4 (i.e. a disk access) needs to occur before each respective unit stream is supplied to client 7 from data transfer unit 5. As can be seen from col. 7, lines 33-43 and 60-65 and Fig. 5, element S25 of Yao, the carrying out of scheduling takes into account disk

accesses (time-slot interval I) as well as transfer start timings (transfer start timings of the unit streams S0 to Sm-1 are displaced one another by the block transfer time T/m) in order to determine the overall schedule of transmission of the unit streams S0 to Sm-1. Once the scheduling is defined, each unit stream is supplied from data transfer unit 5 to client 7 according to the schedule (see col. 7, lines 60-65 and Fig. 5, element S26 of Yao). Accordingly, based the foregoing, Yao sufficiently discloses clause [b] ("defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times") of claim 1.

**Response to B.1.a.2.**

Appellant argues, in section B.1.a.2., that:

*"...Yao also does not recite the text of clause [c] of Appellant's Independent Claim 1, which recites, "transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times."*

The Examiner respectfully disagrees. Fig. 5, element S26 of Yao states, "Supply each unit stream to client according to schedule". Thus, it is clear that Yao discloses transmitting ("supplying") the content ("unit streams") according to the schedule. Additionally, each unit stream consists of blocks stored on disks (see col. 4, lines 6-20). Blocks are addressable units of data. Therefore, Yao's unit streams are addressable at all times. Accordingly, based on the foregoing, Yao sufficiently discloses clause [c]

("transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times") of claim 1.

Furthermore, the Examiner notes that Appellant's arguments regarding Yao's disclosure of clause [c] of claim 1 fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Lastly, the Examiner notes that Appellant's arguments regarding Yao's disclosure of clause [c] of claim 1 do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

#### **Response to B.2.**

Appellant argues, in section B.2., that:

*"...Dependent Claims 2-16 are patentable for at least the reasons why Independent Claim 1 is patentable."*

The Examiner respectfully disagrees and refers Appellant above to the responses to B.1.a.1. and B.1.a.2. which detail how Yao anticipates claim 1.

#### **Response to C.1.a.1.**

Appellant argues, in section C.1.a.1., that:

*“...Yao does not recite the text of clause [b] (“means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times”) of Appellant’s Independent Claim 17.”*

The Examiner respectfully disagrees. As detailed in previous Office actions, the Examiner submits that Yao’s “unit streams S0 to Sm-1” are equivalent to Appellant’s claimed “content”. Keeping that in mind, when taking the broadest reasonable interpretation of the limitation “means for defining a schedule of content transmission”, it becomes evident that the multiple steps completed by Yao’s real time stream server 1 to carry out the scheduling of transfer starting times for the unit streams S0 to Sm-1 (see col. 7, lines 33-60 and Fig. 5 of Yao) sufficiently discloses the limitation of “means for defining a schedule of content transmission”, as simply and broadly claimed by Appellant.

Furthermore, the Examiner submits that Yao’s “transfer start timings” for each of the unit streams S0 to Sm-1 are equivalent to Appellant’s claimed “one or more transmission times”. Thus, it follows that Yao’s schedule, in which transfer start timings are associated with each of the unit streams S0 to Sm-1 (see col. 7, lines 33-35 and Fig. 5, element S25 of Yao), sufficiently discloses “the schedule expressly identifying the content by one or more times”, as simply and broadly claimed by Appellant.

Additionally, it appears that Appellant is concerned by the fact that the top block of the disk device is read before the transfer start timing. However, such actions make sense because the reading of the top block from disk device 31 into buffer memory 4

(i.e. a disk access) needs to occur before each respective unit stream is supplied to client 7 from data transfer unit 5. As can be seen from col. 7, lines 33-43 and 60-65 and Fig. 5, element S25 of Yao, the carrying out of scheduling takes into account disk accesses (time-slot interval I) as well as transfer start timings (transfer start timings of the unit streams S0 to Sm-1 are displaced one another by the block transfer time T/m) in order to determine the overall schedule of transmission of the unit streams S0 to Sm-1. Once the scheduling is defined, each unit stream is supplied from data transfer unit 5 to client 7 according to the schedule (see col. 7, lines 60-65 and Fig. 5, element S26 of Yao). Accordingly, based the foregoing, Yao sufficiently discloses clause [b] ("means for defining a schedule of content transmission in response to the organization of the at least one content of the at least one spatial data storage system, the schedule expressly identifying the content by one or more transmission times") of claim 17.

#### **Response to C.1.a.2.**

Appellant argues, in section C.1.a.2., that:

*“...Yao also does not recite the text of clause [c] of Appellant’s Independent Claim 17, which recites, “means for transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times.””*

The Examiner respectfully disagrees. Fig. 5, element S26 of Yao states, "Supply each unit stream to client according to schedule". Thus, it is clear that Yao's real time stream server 1 discloses transmitting ("supplying") the content ("unit streams") according to the schedule. Additionally, each unit stream consists of blocks stored on

disks (see col. 4, lines 6-20). Blocks are addressable units of data. Therefore, Yao's unit streams are addressable at all times. Accordingly, based on the foregoing, Yao sufficiently discloses clause [c] ("means for transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times") of claim 17.

Furthermore, the Examiner notes that Appellant's arguments regarding Yao's disclosure of clause [c] of claim 17 fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

Lastly, the Examiner notes that Appellant's arguments regarding Yao's disclosure of clause [c] of claim 17 do not comply with 37 CFR 1.111(c) because they do not clearly point out the patentable novelty which he or she thinks the claims present in view of the state of the art disclosed by the references cited or the objections made. Further, they do not show how the amendments avoid such references or objections.

### **Response to C.2.**

Appellant argues, in section C.2., that:

*"...Dependent Claims 8-32 are patentable for at least the reasons why Independent Claim 17 is patentable."*

The Examiner respectfully disagrees and refers Appellant above to the responses to C.1.a.1. and C.1.a.2. which detail how Yao anticipates claim 17.

**Response to D.**

Appellant argues, in section D., that:

*"Gallagher does not cure the deficiency of Yao in not showing or suggesting at least some of the elements of Appellant's claim 1. Thus, the combination fails to establish a prima facie case of obviousness."*

The Examiner respectfully disagrees and refers Appellant above to the responses to B.1.a.1. and B.1.a.2. which detail how Yao anticipates claim 1. Accordingly, the combination of Yao/Gallagher renders claims 14-16 unpatentable.

**Response to E.**

Appellant argues, in section E., that:

*"Gallagher does not cure the deficiency of Yao in not reciting the elements of Appellant's claim 17. Thus, the combination fails to establish a prima facie case of obviousness."*

The Examiner respectfully disagrees and refers Appellant above to the responses to C.1.a.1. and C.1.a.2. which detail how Yao anticipates claim 17. Accordingly, the combination of Yao/Gallagher renders claims 30-32 unpatentable.

**Response to F.**

Appellant argues, in section F., that:

*"Jaeger does not cure the deficiency of Yao of not reciting the elements of Appellant's claim 1. Thus, the combination fails to establish a prima facie case of obviousness."*

The Examiner respectfully disagrees and refers Appellant above to the responses to B.1.a.1. and B.1.a.2. which detail how Yao anticipates claim 1. Accordingly, the combination of Yao/Jaeger renders claims 4 and 8-9 unpatentable.

#### **Response to G.**

Appellant argues, in section G., that:

*"Jaeger does not cure the deficiency of Yao of not reciting the elements of Appellant's claim 17. Thus, the combination fails to establish a prima facie case of obviousness."*

The Examiner respectfully disagrees and refers Appellant above to the responses to C.1.a.1. and C.1.a.2. which detail how Yao anticipates claim 17. Accordingly, the combination of Yao/Jaeger renders claims 20 and 24-25 unpatentable.

#### **Response to VIII.**

Appellant argues, in section VIII, that:

*"Similarly, claim 17 has been amended to recite "means for transmitting the content," or more specifically, "means for transmitting the content according to the schedule, wherein the content is addressable at the one or more transmission times."*

*Because means for transmitting content produces a tangible result with utility in*

*practical applications to produce real world results, Appellant respectfully requests that the 35 USC 101 rejection be removed from claim 1.*

*Claims 18-32 depend from claim 17. Since dependent claims contain all the language of their base claim, Appellant respectfully requests that the 35 USC 101 rejection be removed from claims 18-32."*

The Examiner respectfully disagrees. As an initial matter, the Examiner notes that claims 17-32 have not been rejected under 35 U.S.C. 101 for failing to produce a useful, concrete, and tangible result as alleged by Appellant, but rather claims 17-32 have been rejected under 35 U.S.C. 101 for being not being limited to tangible embodiments (see the 101 rejection above).

A portion of page 3 of Appellant's specification states:

"In one or more various embodiments, related systems include but are not limited to circuitry and/or programming for effecting the method embodiments described in the text and/or drawings of the present application; the circuitry and/or programming can be virtually any combination of hardware, software, and/or firmware configured to effect the foregoing-referenced method embodiments depending upon the design choices of the system designer." (emphasis added)

A portion of page 19 of Appellant's specification states:

"Those having skill in the art will appreciate that there are various vehicles by which processes and/or systems described herein can be effected (e.g., hardware, software, and/or firmware), and that the preferred vehicle will vary with the context in which the processes are deployed. For example, if an implementer determines that speed and accuracy are paramount, the implementer may opt for a hardware and/or firmware vehicle; alternatively, if flexibility is paramount, the implementer may opt for a solely software implementation; or, yet again alternatively, the implementer may opt for some combination of hardware, software, and/or firmware.

The foregoing detailed description has set forth various embodiments of the devices and/or processes via the use of block diagrams, flowcharts, and examples. Insofar as such block diagrams, flowcharts, and examples contain one or more functions and/or operations, it will be understood as notorious by those within the art that each function and/or operation within such block diagrams, flowcharts, or examples can be implemented, individually and/or collectively, by a wide range of hardware, software, firmware, or virtually any combination thereof" (emphasis added)

A portion of page 20 of Appellant's specification states:

"In a general sense, those skilled in the art will recognize that the various embodiments described herein which can be implemented, individually and/or collectively, by a wide range of hardware, software, firmware, or any combination thereof can be viewed as being composed of various types of "electrical circuitry." (emphasis added)

As can be seen from the various portions of Appellant's specification reproduced above, the "system" in claims 17-32 can be embodied as entirely software, *per se*, thus lacking hardware necessary to realize the software's functionality. Accordingly, the system in claims 17-32 simply represents functional descriptive material and is therefore non-statutory subject matter.

#### **(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

*/Arpan Savla/*

Examiner, Art Unit 2185

Conferees:

*/Kevin L Ellis/*  
Supervisory Patent Examiner, Art Unit 2117

*/Sanjiv Shah/*

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